

IDRC-141e

# Canada's Role in Science and Technology for Development

Proceedings of a symposium held at the  
Ontario Science Centre, Toronto, Canada  
10-13 May 1979

J. King Gordon  
Editor



ARCHIV  
600(71:1)-7  
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1979

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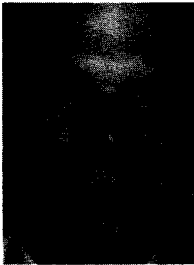
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## Governmental View of Science and Technology for International Development

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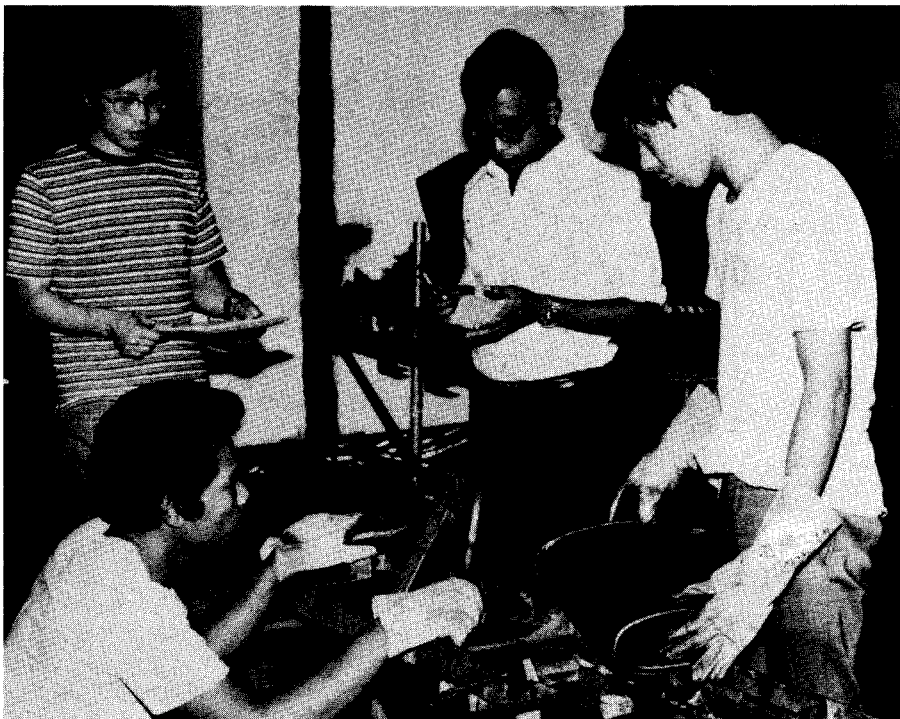
*Robert Johnstone,  
Department of  
External Affairs*

This symposium on science and technology looks toward the United Nations conference on this subject, to be held in Vienna in August. The Vienna conference, like this symposium, is not about science as such. It is about development and the contribution that science and technology can make to the process of development. That blending of means and ends must call forth the talents of scientists, and of those in industry who know how to apply the fruits of science, of those whose work is in the field of development policy, and those in governments. All elements of this blend are present at this symposium. We must all be grateful to IDRC for bringing us together for what I know will be a useful meeting on an immensely important and varied subject. On behalf of all of us, I would like to thank IDRC for this opportunity to work together in the cause to which the Centre is devoted.

Science and technology for development means science and technology for the developing countries, science and technology that are attuned to the objectives of developing countries and responsive to their needs. This symposium will, I have no doubt, derive much of its value from the fact that many participating in it come from the developing world. That will help to ensure that the objectives and the real needs of developing countries stay in the front of our minds.

Let me say a word or two about the United Nations conference that will open in just 3 months. It is not, first of all, an isolated event. It is one of other, related steps being taken in the United Nations context to improve the circumstances of developing countries and their citizens. It is linked particularly to the development of a code of conduct for the transfer of technology being carried on under UNCTAD and to the negotiations for changes in the international system that now regulates intellectual property in the revision of the Paris Convention on Intellectual Property. A second session of the negotiating conference on the code of conduct for the transfer of technology will be held late this year, and a conference for the revision of the Paris Convention is due to take place early in 1980; preparations for both have been going on for the last few years.

Preparations for the Vienna conference have been under way for 2 years. Nonetheless, the specific issues that it will face are only now emerging clearly. The fourth session of the preparatory committee ended last Friday in New York without having advanced very far in detailed negotiation. We hope that the fifth



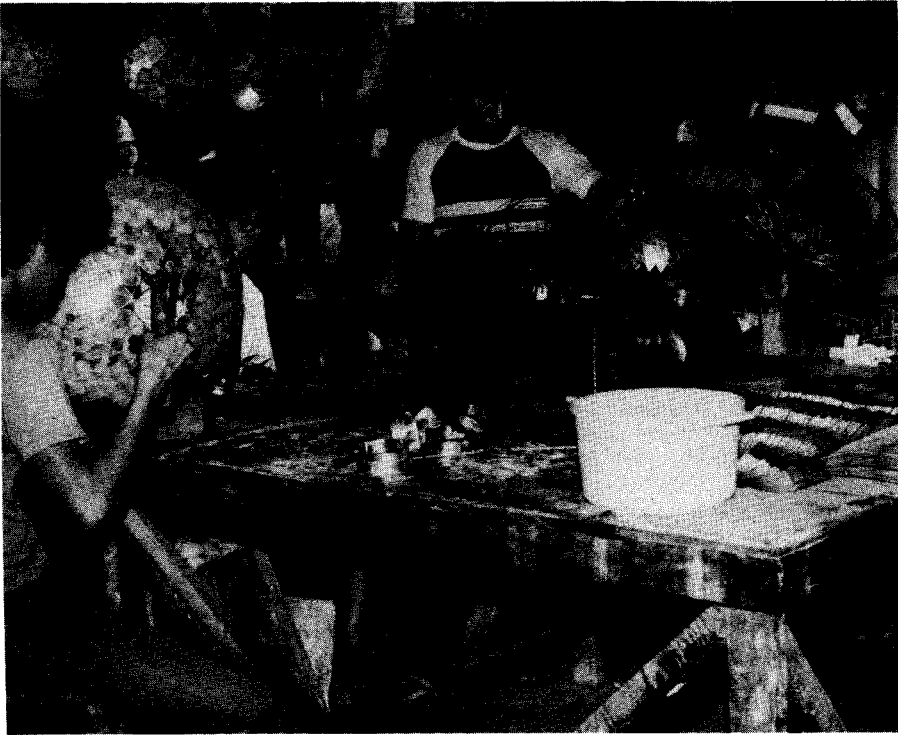
*A small metalworking firm in Manila, Philippines, produces mufflers on contract for General Motors. The terms and conditions of such contracts are a concern for the upcoming UN conference.*

session, to be held at the end of June, will be able to complete the basic preparatory work before the conference begins in August.

As you have no doubt heard from others, the Vienna conference is expected to produce a program of action. It is the details of this program that are taking so long to emerge. Although the developing countries are, of course, not all alike, they are proceeding on the basis of common positions that often take a long time to work out. Preparations and preliminary negotiations are going ahead on the basis of three target areas set by the developing countries: strengthening the scientific and technological capacities of developing countries; restructuring the conditions that govern access to scientific and technical knowledge; and strengthening the coordination of scientific and technological activities within the United Nations system, and increasing the finances required for these activities.

The first of these, in effect, is concerned with intergovernmental activities; the second is concerned mainly with the commercial terms and conditions of access to privately owned technology; and the third is concerned with better use of and more money for the United Nations in its scientific and technological activities. Of these three broad themes, which have been reflected in the Canadian preparations, the first is the most important.

If developing countries acquire and develop technology, it should be the right technology. How do they decide on what is appropriate for them? How do they build the kind of technological infrastructure that will enable them to make the right decisions in determining their needs and the solutions to their prob-



*How do developing countries decide whether labour-intensive industries, such as lampshade-making in the Philippines, are the best choice?*

lems? How do they know whether simple, traditional, labour-intensive technology is the best solution to the problem? Or, if sophisticated technology is what is called for, how do they choose from the many technologies available to them? We in the so-called developed world cannot simply tell those who struggle with the problems in developing countries what the best solutions are. But we have a major contribution to make to the building up of the human and institutional resources needed by the developing countries to choose the optimum technological path toward their goals. The creation of an infrastructure like this is a long-term process, and it will require new policies in Canada.

The Vienna conference will not be limited to questions such as I have just raised. The second target area — access to scientific and technical knowledge — will be given a good deal of attention. This theme is obviously of great importance to Canadian industry and to the Canadian economy. It is clear that as a result of the United Nations exercises I have mentioned, as well as others (such as the development of a code of conduct for transnational corporations being carried out under the Economic and Social Council of the United Nations), there will be changes in the way that international commercial transactions involving the transfer of technology are carried out. It is too early to say what these changes will be or how extensively they will affect the way that business is conducted now, but change is inevitable as the developing countries pursue their goal of a greater share of the world's industry. Commercial transfers of technology will certainly continue to take place, and I am sure that Canadian industry, which is both an importer and an exporter of technology, can meet the challenges of change.

The third theme identified by the developing countries concerns the organization and funding of scientific and technological activities within the United Nations system. Some restructuring and better coordination of the multitude of United Nations bodies and agencies involved in science and technology will undoubtedly result, but I will not dwell on that now.

Let me conclude with a word about preparations in our government for the Vienna conference. The several departments and agencies in Ottawa that are involved have been in contact with provincial governments, the scientific and technological community, industry, labour, and a variety of nongovernmental organizations. These contacts will continue as the issues become clearer. The Association of the Scientific, Engineering, and Technological Community of Canada (SCITEC) and the Royal Society of Canada have been involved and have presented a report outlining a variety of new initiatives. Of particular importance is an interdepartmental study being undertaken to respond to the requests by developing countries that the developed countries allocate an increasing proportion of their domestic efforts in research and development to problems of concern to the Third World and that this research be done on a co-operative basis with scientists and laboratories of Third World countries. IDRC, CIDA, and the Ministry of State for Science and Technology are deeply involved with this study, and I am sure you will be hearing more about it. It is our hope that its results — by identifying ways in which Canadian research and development capabilities can be better applied to international development — will lead to a substantial and productive contribution by Canada to the first theme of the Vienna conference.

The Vienna conference, then, will be a conference at which governments will try to work out new policies to ensure that the development process in developing countries benefits to a greater extent than heretofore from the application of science and technology. We look to this symposium to make an important contribution to Canadian preparations for the conference.

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